REMARKS

This paper is responsive to a Non-Final Office action dated January 10, 2007. Claims 1-43 were examined.

Objections to the Claims

Claims 29-43 are objected to for including informalities.

The Office apparently objects to independent claim 29 for not including language identical to language of independent claim 43. Applicants respectfully maintain that there is no such requirement and that claim 29 is allowable over the art of record. Accordingly, Applicants respectfully request that the objection to claim 29 be withdrawn.

Claim 30 is amended to provide antecedent basis.

The Office apparently objects to independent claim 42 for not using language identical to language of other independent claims. Applicants respectfully maintain that there is no such requirement and that claim 42 is allowable over the art of record. Accordingly, Applicants respectfully request that the objection to claim 42 be withdrawn.

The Office apparently objects to independent claim 43 for not using language identical to language of other independent claims. Applicants respectfully maintain that there is no such requirement and that claim 43 is allowable over the art of record. Accordingly, Applicants respectfully request that the objection to claim 43 be withdrawn.

Applicants believe that claims 29-43 are in condition for allowance. Accordingly, Applicants respectfully request a notice of allowance of claims 29-43.

Claim Rejections Under 35 U.S.C. § 103

Claim 30 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,169,618 to Higashino (hereinafter, "Higashino") in view of U.S. Patent No. 6,377,082 to Loinaz et al. (hereinafter, "Loinaz"). Applicants respectfully maintain that Higashino, alone or in combination with Loinaz, or other references of record, fails to teach or suggest that

> the count value is a number of input data samples having a signal strength magnitude above the signal strength threshold level,

as required by claim 30. Higashino teaches a digital automatic power controller for controlling output light intensity of an optical communication system light source. Abstract. Higashino teaches a counter circuit that counts down or counts up in response to count control signals output from a comparator. Col. 1, lines 50-52; FIG. 3. Higashino teaches further that

> [t]he counter circuit 150 counts a count value (N) down bit by bit when the count control signal (C2) is at a high level out of the count control signals (C2) and (C3) received from the comparator 140. When the count control signal (C3) is at a high level, the circuit 150 counts a count value (N) up bit by bit. When both the count control signals (C2) and (C3) are at a low level, the circuit conducts no counting operation.

Col. 2, lines 20-26 (emphasis added); FIG. 3. Higashino teaches another counter and count value:

> [t]he counter circuit 15 counts down the second-lowest-order bit of the count value (N) bit by bit when the two count control signals (C1) and (C2) are at a high level out of the count control signals (C1), (C2), (C3) and (C4) received from the comparator 14. If only the count control signal (C2) is at a high level, the counter circuit counts down only the lowest-order bit of the count value (N) bit by bit. When only the count control signal (C3) is at a high level, the counter circuit counts up only the lowest-order bit of the count value (N) bit by bit. When the two count control signals (C3) and (C4) are at a high level, the counter circuit counts up the second-lowest-order bit of the count value (N) bit by bit. In other words, when the two count control signals (C1) and (C2) are at a high level, the count value (N) is counted down by "2" and when the two count control signals (C3) and (C4) are at a high level, the count value (N) is counted up by "2". When only the count control signal (C2) is at a high level, the count value (N) is conventionally counted down by "1", and when only the count control signal (C3) is at a high level, the count value (N) is conventionally counted up by "1". When all of the count control signals (Cl), (C2), (C3) and (C4) are at a low level, no counting operation is conducted.

Col. 9, lines 33-55 (emphasis added); FIG. 1. The counter values of FIG. 1 and FIG. 3 of Higashino are both generated by counting up and counting down based on count control signal levels to generate an indicator of the feedback light intensity. Thus, the count values of

Higashino fail to teach or suggest a count value that is a number of input data samples having a signal strength above the signal strength threshold level, as required by claim 30.

Loinaz fails to compensate for the shortcomings of Higashino. Loinaz teaches transition detector 201 that detects the number of 0-1 and 1-0 transitions and producing a high output signal if less than K transitions are detected over a specified time period, thus indicating a stuck-at-zero or stuck-at-one condition. Col. 2, lines 9-20. Loinaz also teaches a peak detector 203 that estimates a peak value of an input data signal, which is subtracted from an LOS threshold signal to generate an output signal indicating an LOS if the peak signal falls below an LOS threshold value. Col. 2, lines 21-41. The outputs of peak detector 203 and transition detector 201 of Loinaz are logically ORed to generate an LOS indicator. Col. 2, lines 52-57.

Loinaz teaches further that difference signals are sampled to generate decision circuit output signals, which are decisions of whether the sampled data is a logic '1' or a '0' based on comparison to a decision threshold signal. Col. 4, lines 51-35-50. The decision threshold signal of Loinaz may be set to the midpoint between logic '0' and logic '1', or the midpoint offset by a delta. Col. 1, lines 20-26; col. 4, lines 41-50. The decision circuit output signals of Loinaz are used to generate inconsistency signals, which are then counted to determine an LOS condition. Col. 4, line 51- col. 5, line 10. Applicants respectfully maintain that the difference signals, decision threshold signals, and decision circuit output signals of Loinaz fail to teach or suggest signal strength magnitude, signal strength threshold levels, or indications as claimed. Applicants respectfully point the Examiner to at least the specification page 4, lines 8-24 and page 7, lines 12-20, which describe signal strength. Nowhere does Loinaz teach or suggest a counter circuit coupled to count according to an output of the sample circuit, as required by claim 30.

Since neither Higashino nor Loinaz teaches or suggests the counter value of claim 30, , Applicants respectfully maintain that claim 30 distinguishes over Higashino, Loinaz, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 30 and all claims dependent thereon, be withdrawn.

Allowable Subject Matter

Applicants appreciate the allowance of claims 1-28.

Applicants appreciate the indication of allowable subject matter in claims 29 and 42-43. Applicants believe that amended claims 29 and 42-43 are in condition for allowance.

Applicants appreciate the indication of allowable subject matter in claims 31-41. Applicants believe that claims 31-41 depend from allowable base claims and are allowable for at least this reason.

In summary, all claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that, on the date shown below, this correspondence is being

☐ deposited with the US Postal Service with sufficient postage as first class mail in an envelope addressed as shown above.

☐ facsimile transmitted to the USPTO.

☒ transmitted using the USPTO electronic filing system.

Nicole Teitler Cave — 3/30/07
Nicole Teitler Cave — Date

EXPRESS MAIL LABEL: _____

Respectfully submitted,

Nicole Teitler Cave, Reg. No. 54,021
Attorney for Applicant(s)
(512) 338-6315 (direct)
(512) 338-6300 (main)
(512) 338-6301 (fax)